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**FERTILIZER  
REPORT**

**FOR THE YEAR  
1951**

**Commonwealth of Pennsylvania**

**HON. JOHN S. FINE, Governor**

**Department of Agriculture**

**HON. MILES HORST, Secretary**

**Harrisburg**

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**Pennsylvania Department of Agriculture**  
**Bureau of Foods and Chemistry**

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*Deputy Secretary*

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# Fertilizer Report—1951

## Introduction

All products intended for fertilizing purposes, except the dung of domestic animals, marl, lime, and wood ashes, shall be registered annually in accordance with the provisions of the Pennsylvania Fertilizer Law, Act of May 1, 1909, as amended.

Section 1 requires the following information to be shown on sacks or attached cards: (a) The number of pounds of fertilizer contained in the package; (b) the name, brand, or trade mark under which the fertilizer is sold; (c) the name and principal address of the manufacturer, importer, or other person putting the fertilizer on the market in this Commonwealth; (d) guarantee for nitrogen; (e) guarantee for total phosphoric acid, except in mixed or super-phosphate fertilizer; (f) guarantee for available phosphoric acid; (g) guarantee for potash soluble in distilled water.

Mixed fertilizer shall contain at least sixteen units of plant food based upon guarantees for nitrogen, available phosphoric acid, and water soluble potash, the guarantees to be stated in even units.

The Law requires that when the word "tobacco" is used as a part of the brand name, the potash content must be in a form other than chloride.

Applications for registration are submitted to each previous licensee toward the close of the calendar year. The application must show the preceding year's tonnage sales of each brand in order that license or registration fee can be properly computed. It must also show the names and number of brands to be sold during the ensuing year, and state the analysis of each one of such brands.

Agents of the Bureau of Foods and Chemistry are empowered to collect samples of commercial fertilizers, at which time reports providing full information for each sample are prepared. The samples and reports are forwarded direct to the Harrisburg Laboratory where an immediate check of the record is effected to determine the registration status. Analyses are then performed to ascertain whether the fertilizers conform to their guarantees.

During the year 1951, Agents of the Department collected 688 official samples. Of this number, a total of 675, representing 286 brands registered by 46 manufacturers, were subjected to analysis and classified as follows:

	Brands	Samples
Complete Fertilizers .....	208	531
Ground Bone Fertilizers .....	5	5
Superphosphate Fertilizers .....	26	74
Rock and Potash Fertilizers .....	42	60
Miscellaneous Fertilizers .....	5	5
Totals .....	286	675

## Requirements for Registration According to Pennsylvania FERTILIZER LAW

**Section 2.** Each manufacturer or importer of commercial fertilizer . . . shall, on or before the first day of January of each year, or before offering them for sale in this Commonwealth, file annually with the Secretary of Agriculture a statement of the names and number of brands of such commercial fertilizers, having distinct trade-names, that he shall offer for sale during the next ensuing year, and a copy of the analysis of each one of such brands of commercial fertilizer . . .

**Section 3.** In addition . . . every manufacturer or importer of commercial fertilizers shall, on or before the first day of January of each year, or before offering them for sale in this Commonwealth, file annually with the Secretary of Agriculture an affidavit showing the amount of each brand of fertilizer, having a distinct trade-name, sold within the Commonwealth during the last preceding year; and if the said amount shall be one hundred and fifty tons or less, he or they shall pay or cause to be paid to the Secretary of Agriculture the sum of fifteen dollars for each and every brand of such commercial fertilizer, having a distinct trade-name, sold within the State during the last preceding year; and if the said amount shall exceed one hundred and fifty tons, and be not more than two hundred and fifty tons, he or they shall pay the sum of twenty dollars, as aforesaid; if the said amount shall exceed two hundred and fifty tons, and not more than four hundred tons, he or they shall pay the sum of thirty dollars; if the amount shall exceed four hundred tons, and not more than five hundred tons, he or they shall pay forty dollars; and if the amount shall exceed five hundred tons, he or they shall pay fifty dollars. If such manufacturer or manufacturers, importer or importers, shall not have made any sales within the Commonwealth during the preceding year, he or they shall pay the sum of fifteen dollars upon each such brand as aforesaid.

**Section 5.** Any person or persons selling, offering, or exposing for sale, any commercial fertilizer or any brand of the same, having a distinct trade-name, without the analysis required by section one of this act, or with an analysis stating that it contains a larger percentage of any one or more of the above-named constituents than is contained therein, or for the sale of which all the provisions of sections two and three have not been complied with, or any person violating any of the provisions of section four of this act, shall be guilty of a misdemeanor, and, on conviction, shall be sentenced to pay a fine of not less than twenty-five nor more than one hundred dollars for the first offense, and not less than two hundred dollars for each subsequent offense. . . .—Act of May 1, 1909, P. L. 344 as amended.

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The Department of Agriculture, as the agency charged by the Legislature with enforcement of the provisions of the Fertilizer Law (copies of which are available upon request) insists upon strict compliance therewith.

## Brands Registered and Tonnage Sales

Licenses were issued to 110 Manufacturers to cover sales of their brands for the year 1951. These licenses included 769 brands of which 646 were mixed fertilizers and 123 so-called "base" materials such as nitrate of soda, sulphate of ammonia, bone, etc.

The 1951 applications for registration showed that 588,111 tons of all classes of fertilizers sold during the year 1950 compared with 622,190 tons sold during 1949 and classified as follows: Complete Fertilizers, 462,659 tons; Ground Bone Fertilizers, 1,254 tons; Superphosphate Fertilizers, 84,327 tons; Rock and Potash Fertilizers, 26,008 tons; and Miscellaneous Fertilizers as follows: Tankage, 762 tons; Nitrate of Soda, 126 tons; Sulphate of Ammonia, 230 tons; and unclassified, 12,745 tons.

The 1950 tonnage figure reveals that there were supplied 18,170 tons of nitrogen, 53,901 tons of available phosphoric acid, and 34,434 tons of water soluble potash, or a total of 106,505 tons of plant food. The amount of plant food is 4,375 tons less than that supplied during the year 1949.

## Conclusions

Of the 675 samples analyzed, 66 or 9.78 per cent were found to be deficient in one or more elements of plant food, to the extent of 0.2 per cent or more. The proportion of deficiencies is lower than that reported for the year 1950.

Considering the plant food elements separately, 25 samples or 3.70 per cent were found to be deficient in nitrogen; 23 or 3.40 per cent deficient in phosphoric acid; 34 or 5.03 per cent deficient in water soluble potash.

Of the total number of fertilizers analyzed, 531 were complete fertilizers and 52 or 9.79 per cent were found to be deficient: 24 or 4.52 per cent deficient in nitrogen; 16 or 3.01 per cent in available phosphoric acid; 22 or 4.14 per cent in water soluble potash.

## Average Analyses and Retail Prices

The average unit values, estimated from the average retail selling prices, were as follows: Nitrogen \$4.50, Available Phosphoric Acid \$1.09, Water Soluble Potash \$1.85.

The average retail selling price for Complete Fertilizers in 1951 was \$48.95 a ton, compared with \$48.62 for 1950.

It is noted that 9.78 per cent of all samples collected during the year 1951 were found to be deficient, which deficiency is lower than the previous year's inspection. In most instances the deficiencies were balanced by overages in other elements. Where the deficiencies were found to be of serious nature, prosecutions were instituted.

## Key to Tables

The following tables include the results of analyses of the official samples. Each sample was given a chemist's number and analyzed for the element or elements guaranteed.

The Asterisk (\*) indicates those samples found to be deficient to the extent of 0.2 per cent or more.

Table I—Deficiencies.

Table II—Average Analyses and Retail Prices.

Table III—Complete Fertilizer, furnishing Nitrogen, Available Phosphoric Acid and Potash.

Table IV—Ground Bone Fertilizers, furnishing Nitrogen, and Total Phosphoric Acid.

Table V—Superphosphate and Lime Phosphate Fertilizers furnishing Available Phosphoric Acid.

Table VI—Rock and Potash Fertilizers furnishing Available Phosphoric Acid and Potash.

Table VII—Miscellaneous Fertilizers.



TABLE I. DEFICIENCIES

CLASS OF FERTILIZERS	SAMPLES	NITROGEN	Number Deficient in	
			AVAILABLE PHOSPHORIC ACID	POTASH
Complete Fertilizers .....	531	24	16	22
Ground Bone Fertilizers .....	5	1	0	0
Superphosphate Fertilizers .....	74	0	0	0
Rock and Potash Fertilizers .....	60	0	7	12
Miscellaneous .....	5	0	0	0
Total .....	675	25	23	34

TABLE II. AVERAGE ANALYSES AND RETAIL PRICES

FORM OF PLANT FOOD	COMPLETE	GROUND BONE	SUPER-	ROCK AND	MISCEL-
	FERTILIZERS	FERTILIZERS	PHOSPHATE FERTILIZERS*	POTASH FERTILIZERS	LANEOUS
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
Nitrogen .....	4.65	2.85	....	....	26.50
Available Phosphoric Acid ....	11.95	28.95	20.66	16.03	2.76
Potash .....	8.06	....	....	13.57	....
Selling Price 1951 .....	\$48.95	\$105.79	\$32.47	\$44.56	\$75.70
Selling Price 1950 .....	\$48.62	\$ 87.78	\$30.49	\$46.29	\$72.50

\* Excluding Lime Phosphate

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		As Muriate
			Found	Guar.	Found	Guar.	Found	Guar.	
THE AMERICAN AGRICULTURAL CHEMICAL CO. New York, N. Y.			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
AA Quality Fertilizer	2-12-12	(632)	2.12	2.00	12.46	12.00	12.25	12.00	----
AA Quality Fertilizer	3-12-6	(543)	3.25	3.00	12.46	12.00	6.23	6.00	----
AA Quality Fertilizer	3-12-6	(669)	3.11	3.00	*11.72	12.00	5.98	6.00	----
AA Quality Fertilizer	5-10-5	(344)	5.11	5.00	10.58	10.00	5.00	5.00	----
AA Quality Fertilizer	5-10-5	(670)	5.01	5.00	9.84	10.00	5.05	5.00	----
AA Quality Fertilizer	5-10-10	(370)	5.00	5.00	11.08	10.00	*9.54	10.00	----
AA Quality Fertilizer	5-10-10	(582)	5.01	5.00	11.02	10.00	10.13	10.00	----
AA Quality Fertilizer	5-10-10	(671)	5.10	5.00	10.36	10.00	10.34	10.00	----
Agrico Country Club	6-10-4	(199)	6.05	6.00	10.64	10.00	5.11	4.00	----
Agrico for Commercial Growers									
Agrico for Corn	4-12-4	(664)	3.81	4.00	13.26	12.00	3.80	4.00	----
Agrico for Corn	3-12-6	( 67 )	3.01	3.00	12.04	12.00	6.21	6.00	----
Agrico for Corn	3-12-6	(195)	3.23	3.00	11.82	12.00	6.28	6.00	----
Agrico for Corn	3-12-6	(233)	2.80	3.00	12.68	12.00	5.82	6.00	----
Agrico for Corn	3-12-6	(410)	2.94	3.00	11.96	12.00	6.22	6.00	----
Agrico for Corn	3-12-6	(627)	3.17	3.00	12.34	12.00	6.06	6.00	----
Agrico for Corn	4-12-8	(243)	4.05	4.00	12.38	12.00	7.91	8.00	----
Agrico for Gardens	5-10-5	(340)	5.37	5.00	10.48	10.00	5.53	5.00	----
Agrico for Gardens	5-10-5	(437)	5.18	5.00	10.14	10.00	5.20	5.00	----
Agrico for Gardens	5-10-5	(468)	5.06	5.00	10.74	10.00	5.37	5.00	----
Agrico for Gardens	5-10-5	(635)	5.10	5.00	9.98	10.00	5.53	5.00	----
Agrico for Grain	2-12-6	( 10 )	1.85	2.00	12.12	12.00	6.34	6.00	----
Agrico for Grain	2-12-6	(525)	2.00	2.00	12.30	12.00	6.33	6.00	----
Agrico for Grain	2-12-12	(196)	2.19	2.00	*11.80	12.00	13.41	12.00	----
Agrico for Grain	3-12-6	( 11 )	3.10	3.00	11.92	12.00	6.11	6.00	----
Agrico for Grain	3-12-6	( 28 )	3.04	3.00	12.26	12.00	6.48	6.00	----
Agrico for Grain	3-12-6	(464)	3.10	3.00	13.02	12.00	5.91	6.00	----
Agrico for Grain	3-12-6	(472)	3.13	3.00	12.32	12.00	6.46	6.00	----
Agrico for Grain	3-12-6	(580)	3.06	3.00	12.50	12.00	6.40	6.00	----
Agrico for Grain	3-12-6	(600)	2.90	3.00	12.42	12.00	6.17	6.00	----
Agrico for Grain	3-12-6	(645)	3.18	3.00	12.08	12.00	6.78	6.00	----
Agrico for Grain	3-12-6	(667)	3.17	3.00	11.82	12.00	6.16	6.00	----
Agrico for Lawns, Trees & Shrubs	6-10-4	(441)	6.19	6.00	10.74	10.00	4.16	4.00	----
Agrico for Lawns, Trees & Shrubs									
Agrico for Potatoes	4-12-8	(191)	4.02	4.00	*11.56	12.00	8.64	8.00	----
Agrico for Potatoes	4-12-8	(646)	4.20	4.00	12.14	12.00	8.60	8.00	----
Agrico for Potatoes	4-12-8	(672)	4.37	4.00	12.42	12.00	8.26	8.00	----
Agrico for Potatoes	4-12-12	( 29 )	3.94	4.00	12.04	12.00	12.42	12.00	----
Agrico for Potatoes	4-12-12	(192)	4.12	4.00	13.12	12.00	12.84	12.00	----
Agrico for Potatoes	4-12-12	(677)	4.01	4.00	12.54	12.00	12.14	12.00	----
Agrico for Potatoes	5-10-10	( 16 )	5.02	5.00	10.92	10.00	10.93	10.00	----
Agrico for Potatoes	5-10-10	( 69 )	5.14	5.00	10.54	10.00	10.12	10.00	----
Agrico for Potatoes	5-10-10	(193)	5.04	5.00	10.62	10.00	10.44	10.00	----
Agrico for Potatoes	5-10-10	(438)	5.20	5.00	10.44	10.00	10.10	10.00	----
Agrico for Potatoes	5-10-10	(625)	5.16	5.00	10.90	10.00	9.95	10.00	----
Agrico for Top Dressing	10-6-4	(469)	10.12	10.00	7.14	6.00	4.59	4.00	----
Agrico for Top Dressing	10-6-4	(666)	9.93	10.00	6.60	6.00	4.00	4.00	----
Agrico for Truck	5-10-5	( 15 )	5.14	5.00	10.16	10.00	5.71	5.00	----
Agrico for Truck	5-10-5	(470)	5.17	5.00	10.30	10.00	5.10	5.00	----
Agrico for Truck	5-10-5	(601)	5.13	5.00	10.38	10.00	5.16	5.00	----
Agrico for Truck	5-10-5	(626)	5.18	5.00	10.06	10.00	5.36	5.00	----
Agrico for Truck	5-10-5	(665)	5.02	5.00	10.78	10.00	5.22	5.00	----
Agrico for Truck	5-10-10	( 26 )	4.94	5.00	*9.72	10.00	10.64	10.00	----
Agrico for Truck	5-10-10	(356)	4.88	5.00	10.62	10.00	10.47	10.00	----
Agrico for Truck	5-10-10	(473)	5.41	5.00	10.32	10.00	10.72	10.00	----
Agrico for Truck	5-10-10	(526)	5.23	5.00	10.04	10.00	10.56	10.00	----
Agrico for Truck	5-10-10	(673)	*3.92	5.00	11.30	10.00	*7.87	10.00	----
ARMOUR FERTILIZER WORKS Baltimore, Md.									
Armour's Big Crop	3-12-6	( 17 )	3.08	3.00	12.60	12.00	6.57	6.00	----
Armour's Big Crop	3-12-6	( 82 )	3.09	3.00	12.86	12.00	6.22	6.00	----
Armour's Big Crop	3-12-6	(158)	3.12	3.00	12.66	12.00	6.28	6.00	----
Armour's Big Crop	3-12-6	(230)	3.15	3.00	12.66	12.00	6.35	6.00	----
Armour's Big Crop	3-12-6	(260)	3.36	3.00	*11.78	12.00	6.33	6.00	----
Armour's Big Crop	3-12-6	(366)	3.47	3.00	12.96	12.00	6.81	6.00	----
Armour's Big Crop	3-12-6	(433)	3.26	3.00	12.94	12.00	6.24	6.00	----
Armour's Big Crop	3-12-6	(487)	3.14	3.00	12.64	12.00	6.24	6.00	----
Armour's Big Crop	3-12-6	(541)	3.05	3.00	13.38	12.00	6.15	6.00	----
Armour's Big Crop	3-12-6	(575)	3.14	3.00	13.46	12.00	6.14	6.00	----
Armour's Big Crop	3-12-6	(596)	3.15	3.00	12.74	12.00	6.36	6.00	----
Armour's Big Crop	3-12-6	(629)	3.11	3.00	12.70	12.00	6.36	6.00	----
Armour's Big Crop	4-12-4	(391)	4.11	4.00	13.30	12.00	4.40	4.00	----
Armour's Big Crop	4-12-4	(488)	4.00	4.00	12.92	12.00	6.15	4.00	----
Armour's Big Crop	4-12-4	(507)	4.31	4.00	12.96	12.00	4.55	4.00	----
Armour's Big Crop	4-12-8	(259)	4.23	4.00	12.44	12.00	8.99	8.00	----
Armour's Big Crop	4-12-8	(360)	4.09	4.00	12.84	12.00	8.63	8.00	----
Armour's Big Crop	4-12-8	(436)	4.20	4.00	13.00	12.00	8.18	8.00	----
Armour's Big Crop	4-12-8	(486)	4.16	4.00	12.92	12.00	8.14	8.00	----
Armour's Big Crop	4-12-12	(510)	4.11	4.00	13.38	12.00	12.32	12.00	----
Armour's Big Crop	4-16-8	(605)	4.35	4.00	17.06	16.00	7.80	8.00	----
Armour's Big Crop	5-10-5	(303)	*3.37	5.00	11.32	10.00	6.39	5.00	----
Armour's Big Crop	5-10-5	(368)	5.08	5.00	10.84	10.00	5.28	5.00	----
Armour's Big Crop	5-10-5	(435)	5.12	5.00	10.84	10.00	5.14	5.00	----
Armour's Big Crop	5-10-5	(498)	5.24	5.00	11.04	10.00	5.27	5.00	----
Armour's Big Crop	5-10-5	(519)	5.17	5.00	11.10	10.00	5.68	5.00	----
Armour's Big Crop	5-10-10	( 83 )	4.81	5.00	10.86	10.00	10.08	10.00	----
Armour's Big Crop	5-10-10	(261)	4.81	5.00	10.84	10.00	*9.76	10.00	----
Armour's Big Crop	5-10-10	(367)	5.01	5.00	10.72	10.00	9.96	10.00	----
Armour's Big Crop	5-10-10	(434)	5.04	5.00	11.06	10.00	10.41	10.00	----
Armour's Big Crop	5-10-10	(499)	5.30	5.00	11.14	10.00	9.92	10.00	----
Armour's Big Crop	5-10-10	(573)	5.16	5.00	10.80	10.00	10.61	10.00	----

\* Deficient



TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
			Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Armour's Big Crop	5-10-10 (597)		*3.81	5.00	11.84	10.00	*7.66	10.00	----
Armour's Big Crop	5-10-10 (630)		*4.70	5.00	11.16	10.00	9.93	10.00	----
Armour Vertagreen	5-10-5 (291)		5.28	5.00	10.66	10.00	5.33	5.00	----
Armour Vertagreen	5-10-5 (304)		5.08	5.00	10.64	10.00	5.00	5.00	----
Armour Vertagreen	5-10-5 (365)		5.02	5.00	11.26	10.00	4.83	5.00	----
Armour Vertagreen	5-10-5 (432)		5.40	5.00	10.74	10.00	5.09	5.00	----
Armour Vertagreen	5-10-5 (520)		5.01	5.00	11.24	10.00	5.39	5.00	----
Armour Vertagreen	5-10-5 (540)		5.40	5.00	11.48	10.00	5.47	5.00	----
Armour Vertagreen	5-10-5 (540)		5.40	5.00	11.48	10.00	5.47	5.00	----
Armour Vertagreen	6-12-12 (231)		6.21	6.00	12.70	12.00	12.10	12.00	----
Armour Vertagreen	6-12-12 (392)		6.21	6.00	12.08	12.00	12.23	12.00	----
Armour Vertagreen	6-12-12 (508)		6.26	6.00	12.02	12.00	12.56	12.00	----
Armour Vertagreen	10-6-4 (539)		*9.54	10.00	7.26	6.00	4.36	4.00	----
BAUGH & SONS COMPANY Philadelphia, Pa.									
Baugh's	5-10-10 (264)		5.00	5.00	11.26	10.00	10.00	10.00	----
Baugh's	5-10-10 (589)		5.07	5.00	11.20	10.00	10.60	10.00	----
Baugh's	5-10-10 (678)		4.86	5.00	11.46	10.00	10.19	10.00	----
Baugh's Balanced Plant Food	4-12-4 (516)		4.23	4.00	12.34	12.00	6.91	4.00	----
Baugh's Balanced Plant Food	4-12-4 (633)		3.90	4.00	13.18	12.00	4.64	4.00	----
Baugh's Century Plant Food	4-8-12 (679)		4.09	4.00	8.30	8.00	12.27	12.00	----
Baugh's Century Plant Food	4-12-8 ( 72)		3.84	4.00	12.72	12.00	8.47	8.00	----
Baugh's Century Plant Food	4-12-8 (278)		4.23	4.00	12.84	12.00	8.75	8.00	----
Baugh's Double Eagle Phosphate	3-12-6 ( 70)		3.14	3.00	12.00	12.00	6.65	6.00	----
Baugh's Double Eagle Phosphate	3-12-6 (148)		3.11	3.00	12.14	12.00	6.45	6.00	----
Baugh's Double Eagle Phosphate	3-12-6 (515)		3.56	3.00	12.46	12.00	6.76	6.00	----
Baugh's Double Eagle Phosphate	3-12-6 (542)		3.16	3.00	12.56	12.00	6.36	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 ( 37)		3.07	3.00	12.00	12.00	6.26	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 ( 71)		3.22	3.00	12.38	12.00	6.42	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (213)		3.01	3.00	12.00	12.00	6.75	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (277)		3.26	3.00	12.64	12.00	6.76	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (411)		3.13	3.00	12.10	12.00	6.50	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (587)		3.19	3.00	12.82	12.00	6.73	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (623)		3.24	3.00	12.32	12.00	6.43	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (624)		3.22	3.00	12.34	12.00	6.32	6.00	----
Baugh's Premium Plant Food & Soil Builder	3-12-6 (649)		3.33	3.00	12.60	12.00	6.84	6.00	----
Baugh's Premium Plant Food & Soil Builder	4-12-12 (145)		4.13	4.00	12.76	12.00	12.58	12.00	----
Baugh's Premium Plant Food & Soil Builder	4-12-12 (263)		4.33	4.00	12.18	12.00	*11.22	12.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 ( 38)		5.09	5.00	10.00	10.00	5.17	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (146)		5.25	5.00	10.90	10.00	5.67	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (214)		4.81	5.00	10.88	10.00	6.38	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (276)		5.12	5.00	10.96	10.00	5.12	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (339)		5.25	5.00	11.42	10.00	5.58	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (350)		5.13	5.00	10.88	10.00	5.17	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (475)		5.09	5.00	10.76	10.00	5.10	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-5 (650)		5.23	5.00	10.26	10.00	5.33	5.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-10 ( 39)		4.87	5.00	10.74	10.00	9.83	10.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-10 (143)		5.24	5.00	10.74	10.00	10.41	10.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-10 (215)		4.82	5.00	11.14	10.00	10.47	10.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-10 (262)		5.20	5.00	11.08	10.00	10.55	10.00	----
Baugh's Premium Plant Food & Soil Builder	5-10-10 (474)		5.01	5.00	10.96	10.00	10.58	10.00	----
Baugh's Premium Plant Food & Soil Builder	7-7-7 (147)		7.15	7.00	7.68	7.00	7.00	7.00	----
Baugh's Tree Food & Soil Dresser	10-10-10 (144)		*9.53	10.00	11.14	10.00	10.84	10.00	----
Baugh's Trucker's Favorite	5-10-5 (517)		5.21	5.00	9.82	10.00	5.29	5.00	----

\* Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
			Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
CARLISLE FERTILIZER WORKS, INC. Carlisle, Pa.									
Carlisle	3-12-6	(397)	3.67	3.00	13.02	12.00	6.36	6.00	----
Carlisle	5-10-10	(398)	5.21	5.00	11.42	10.00	11.47	10.00	----
CENTRAL CHEMICAL CORPORATION Hagerstown, Md.									
Farmrite Famous Fruit Food	10-6-4	( 25)	10.05	10.00	6.26	6.00	4.12	4.00	----
Farmrite Famous Fruit Food	10-6-4	(134)	*9.54	10.00	7.14	6.00	4.41	4.00	----
Farmrite Famous Potato Food	5-10-10	(173)	4.92	5.00	10.26	10.00	11.56	10.00	----
Farmrite Famous Tobacco Special	4-8-12	(332)	4.04	4.00	8.94	8.00	11.85	12.00	----
Farmrite Famous Top Crop	9-9-9	(331)	8.81	9.00	10.20	9.00	8.97	9.00	----
Farmrite Farmers Favorite	4-12-4	( 21)	4.20	4.00	*11.70	12.00	4.83	4.00	----
Farmrite Farmers Favorite	4-12-4	(172)	4.01	4.00	12.00	12.00	5.10	4.00	----
Farmrite Farmers Favorite	4-12-4	(315)	4.06	4.00	12.04	12.00	4.46	4.00	----
Farmrite Farmers Favorite	4-12-4	(503)	4.01	4.00	12.58	12.00	4.23	4.00	----
Farmrite Fertilizer	4-12-8	( 73)	4.94	4.00	*11.10	12.00	9.28	8.00	----
Farmrite Fertilizer	4-12-8	(513)	4.29	4.00	12.02	12.00	8.77	8.00	----
Farmrite Fertilizer	5-10-10	( 18)	5.19	5.00	10.00	10.00	10.58	10.00	----
Farmrite Fertilizer	5-10-10	(171)	5.56	5.00	10.04	10.00	10.78	10.00	----
Farmrite Fertilizer	5-10-10	(333)	5.01	5.00	10.22	10.00	*9.21	10.00	----
Farmrite Fertilizer	5-10-10	(685)	5.09	5.00	9.90	10.00	10.38	10.00	----
Farmrite Fertilizer	5-10-10	(686)	5.10	5.00	9.92	10.00	10.04	10.00	----
Farmrite Fertilizer	5-10-10	(687)	5.02	5.00	10.06	10.00	9.81	10.00	----
Farmrite Fertilizer	5-10-10	(688)	5.02	5.00	10.00	10.00	9.94	10.00	----
Farmrite Fertilizer	5-20-10	(523)	5.10	5.00	20.26	20.00	10.06	10.00	----
Farmrite Fertilizer	8-16-16	(524)	*7.53	8.00	17.34	16.00	*15.18	16.00	----
Farmrite Fertilizer	10-10-10	( 24)	*9.61	10.00	9.82	10.00	10.45	10.00	----
Farmrite Fertilizer	10-10-10	(522)	9.81	10.00	11.32	10.00	9.98	10.00	----
Farmrite Golden Grain	3-12-6	( 19)	3.10	3.00	12.38	12.00	6.59	6.00	----
Farmrite Golden Grain	3-12-6	( 90)	2.87	3.00	12.92	12.00	6.30	6.00	----
Farmrite Golden Grain	3-12-6	(170)	2.92	3.00	12.58	12.00	6.81	6.00	----
Farmrite Golden Grain	3-12-6	(316)	3.25	3.00	12.32	12.00	6.73	6.00	----
Farmrite Golden Grain	3-12-6	(335)	3.66	3.00	11.82	12.00	6.34	6.00	----
Farmrite Golden Grain	3-12-6	(480)	3.07	3.00	12.98	12.00	6.33	6.00	----
Farmrite Golden Grain	3-12-6	(590)	3.13	3.00	13.48	12.00	6.05	6.00	----
Farmrite Truck Special	5-10-5	( 20)	5.00	5.00	10.04	10.00	5.38	5.00	----
Farmrite Truck Special	5-10-5	(169)	4.81	5.00	10.96	10.00	5.58	5.00	----
Farmrite Truck Special	5-10-5	(317)	5.28	5.00	10.46	10.00	5.11	5.00	----
Farmrite Truck Special	5-10-5	(334)	4.84	5.00	10.38	10.00	5.04	5.00	----
Farmrite Truck Special	5-10-5	(512)	5.19	5.00	10.18	10.00	5.37	5.00	----
Growell Complete Fertilizer	4-12-4	(481)	4.14	4.00	12.08	12.00	4.35	4.00	----
CUMBERLAND VALLEY COOPERATIVE ASSN. Shippensburg, Pa.									
Old Reliable	3-12-6	(405)	2.84	3.00	14.88	12.00	7.66	6.00	----
THE DAVISON CHEMICAL CORPORATION Baltimore, Md.									
Davco Granulated	2-12-12	(485)	3.36	2.00	12.66	12.00	12.66	12.00	----
Davco Granulated	3-12-6	( 3)	3.02	3.00	12.04	12.00	*6.85	6.00	----
Davco Granulated	3-12-6	( 40)	3.05	3.00	12.04	12.00	*6.11	6.00	----
Davco Granulated	3-12-6	( 59)	3.13	3.00	11.86	12.00	6.17	6.00	----
Davco Granulated	3-12-6	(161)	3.08	3.00	12.28	12.00	5.84	6.00	----
Davco Granulated	3-12-6	(202)	3.18	3.00	12.12	12.00	6.06	6.00	----
Davco Granulated	3-12-6	(248)	3.10	3.00	13.32	12.00	6.52	6.00	----
Davco Granulated	3-12-6	(209)	3.32	3.00	12.32	12.00	6.61	6.00	----
Davco Granulated	3-12-6	(296)	3.27	3.00	12.42	12.00	6.68	6.00	----
Davco Granulated	3-12-6	(378)	3.22	3.00	12.62	12.00	8.20	6.00	----
Davco Granulated	3-12-6	(489)	3.08	3.00	12.16	12.00	6.27	6.00	----
Davco Granulated	3-12-6	(546)	3.24	3.00	12.30	12.00	*5.54	6.00	----
Davco Granulated	3-12-6	(583)	3.41	3.00	12.62	12.00	6.14	6.00	----
Davco Granulated	3-12-6	(614)	3.19	3.00	12.22	12.00	6.76	6.00	----
Davco Granulated	4-12-4	( 1)	4.01	4.00	12.08	12.00	3.94	4.00	----
Davco Granulated	4-12-4	(200)	4.53	4.00	12.20	12.00	4.38	4.00	----
Davco Granulated	4-12-4	(294)	4.10	4.00	11.90	12.00	4.10	4.00	----
Davco Granulated	4-12-4	(376)	4.06	4.00	13.82	12.00	4.61	4.00	----
Davco Granulated	4-12-4	(615)	4.10	4.00	11.80	12.00	4.21	4.00	----
Davco Granulated	4-12-8	(182)	4.35	4.00	12.24	12.00	7.96	8.00	----
Davco Granulated	4-12-8	(297)	4.01	4.00	11.84	12.00	8.54	8.00	----
Davco Granulated	4-12-8	(298)	5.09	4.00	*10.94	12.00	*5.24	8.00	----
Davco Granulated	4-12-3	(491)	4.38	4.00	12.78	12.00	8.36	8.00	----
Davco Granulated	4-12-8	(585)	4.09	4.00	12.56	12.00	*7.70	8.00	----
Davco Granulated	4-16-8	(180)	4.23	4.00	16.40	16.00	7.98	8.00	----
Davco Granulated	5-10-5	( 60)	5.26	5.00	10.02	10.00	5.02	5.00	----
Davco Granulated	5-10-5	(295)	5.34	5.00	10.58	10.00	5.19	5.00	----
Davco Granulated	5-10-5	(300)	5.10	5.00	10.84	10.00	5.25	5.00	----
Davco Granulated	5-10-5	(379)	4.81	5.00	11.94	10.00	5.33	5.00	----
Davco Granulated	5-10-5	(492)	5.37	5.00	10.46	10.00	4.96	5.00	----
Davco Granulated	5-10-5	(616)	5.59	5.00	11.42	10.00	5.29	5.00	----
Davco Granulated	5-10-5	(617)	4.93	5.00	10.66	10.00	5.01	5.00	----
Davco Granulated	5-10-10	( 43)	4.80	5.00	10.92	10.00	10.40	10.00	----
Davco Granulated	5-10-10	(179)	4.81	5.00	10.92	10.00	10.77	10.00	----
Davco Granulated	5-10-10	(249)	4.81	5.00	11.52	10.00	10.62	10.00	----
Davco Granulated	5-10-10	(302)	5.57	5.00	10.64	10.00	*9.29	10.00	----
Davco Granulated	5-10-10	(377)	5.18	5.00	10.86	10.00	10.36	10.00	----
Davco Granulated	5-10-10	(584)	4.91	5.00	10.90	10.00	*9.58	10.00	----
Davco Granulated	5-10-10	(612)	5.11	5.00	10.98	10.00	10.31	10.00	----

\* Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		As Muriate
			Found	Guar.	Found	Guar.	Found	Guar.	
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
EASTERN STATES FARMERS' EXCHANGE INCORPORATED West Springfield, Mass.									
Eastern States	3-12-6	(223)	3.39	3.00	12.76	12.00	6.71	6.00	----
Eastern States	3-12-6	(252)	3.32	3.00	12.68	12.00	6.64	6.00	----
Eastern States	3-12-6	(307)	3.41	3.00	12.46	12.00	7.32	6.00	----
Eastern States	3-12-6	(495)	3.28	3.00	12.50	12.00	7.05	6.00	----
Eastern States	5-10-10	( 89)	5.26	5.00	10.28	10.00	10.90	10.00	----
Eastern States	5-10-10	(160)	5.05	5.00	10.30	10.00	10.67	10.00	----
Eastern States	5-10-10	(225)	5.21	5.00	10.70	10.00	10.95	10.00	----
Eastern States	5-10-10	(251)	5.05	5.00	10.06	10.00	11.26	10.00	----
Eastern States	5-10-10	(305)	5.13	5.00	10.50	10.00	10.88	10.00	----
Eastern States	5-10-10	(400)	4.85	5.00	11.18	10.00	11.63	10.00	----
Eastern States	5-10-10	(452)	5.15	5.00	10.90	10.00	10.97	10.00	----
Eastern States	5-10-10	(497)	5.17	5.00	10.68	10.00	10.66	10.00	----
Eastern States	5-15-15	(224)	4.82	5.00	16.18	15.00	17.39	15.00	----
Eastern States	5-15-15	(257)	5.81	5.00	15.02	15.00	16.48	15.00	----
Eastern States	5-15-15	(544)	5.34	5.00	14.96	15.00	16.00	15.00	----
Eastern States	5-20-10	(255)	5.38	5.00	20.00	20.00	10.12	10.00	----
Eastern States	5-20-10	(454)	4.61	5.00	20.12	20.00	10.54	10.00	----
Eastern States	5-20-10	(496)	5.62	5.00	*18.90	20.00	10.81	10.00	----
Eastern States	8-16-8	(250)	8.32	8.00	16.92	16.00	8.73	8.00	----
Eastern States	8-16-8	(457)	8.13	8.00	16.44	16.00	9.30	8.00	----
Eastern States	8-16-16	(161)	7.92	8.00	16.42	16.00	17.69	16.00	----
Eastern States	8-16-16	(256)	7.88	8.00	16.22	16.00	17.02	16.00	----
Eastern States	8-16-16	(306)	7.82	8.00	16.28	16.00	17.26	16.00	----
Eastern States	8-16-16	(401)	*7.29	8.00	16.66	16.00	16.90	16.00	----
Eastern States	8-16-16	(545)	*7.65	8.00	17.80	16.00	16.79	16.00	----
Eastern States	10-10-10	(258)	10.14	10.00	10.72	10.00	11.27	10.00	----
Eastern States	10-10-10	(458)	9.81	10.00	11.24	10.00	10.48	10.00	----
Eastern States	10-10-10	(493)	10.42	10.00	10.34	10.00	11.40	10.00	----
AMOS EBY & COMPANY Paradise, Pa.									
Eby	3-12-6	(122)	2.91	3.00	12.84	12.00	6.32	6.00	----
Eby	4-8-12	(120)	3.87	4.00	9.10	8.00	13.15	12.00	----
Eby	4-12-4	(123)	4.81	4.00	13.38	12.00	4.25	4.00	----
Eby	5-10-10	(124)	4.82	5.00	11.04	10.00	10.88	10.00	----
ERIE REDUCTION COMPANY Erie, Pa.									
Erie Plant Food	4-12-8	(668)	3.82	4.00	13.28	12.00	*7.20	8.00	----
FARMERS FERTILIZER WORKS Elizabethtown, Pa.									
Farmers	3-12-6	(107)	3.25	3.00	13.08	12.00	7.12	6.00	----
Farmers	3-12-6	(449)	3.31	3.00	12.74	12.00	7.17	6.00	----
Farmers	4-12-8	(106)	4.35	4.00	13.04	12.00	8.76	8.00	----
Farmers	4-12-12	(105)	4.13	4.00	12.58	12.00	13.62	12.00	----
Farmers	5-10-5	(104)	5.06	5.00	11.08	10.00	5.22	5.00	----
Farmers	5-10-5	(448)	4.92	5.00	11.24	10.00	5.90	5.00	----
Farmers	5-10-10	(103)	5.24	5.00	11.14	10.00	10.54	10.00	----
Farmers	5-10-10	(447)	5.12	5.00	11.08	10.00	10.19	10.00	----
Farmers Donegal Plant Food	5-10-5	(110)	5.35	5.00	11.04	10.00	6.79	5.00	----
Farmers Tobacco Special	4-8-12	(112)	4.02	4.00	9.24	8.00	12.43	12.00	----
G.L.F. SOIL BUILDING SERVICE Ithaca, N. Y.									
G.L.F. Plant Food	3-12-6	(348)	3.43	3.00	12.60	12.00	6.79	6.00	----
G.L.F. Plant Food	3-12-6	(373)	3.17	3.00	12.52	12.00	7.48	6.00	----
G.L.F. Plant Food	3-12-6	(570)	3.47	3.00	12.70	12.00	6.37	6.00	----
G.L.F. Plant Food	3-12-6	(682)	3.21	3.00	12.26	12.00	6.63	6.00	----
G.L.F. Plant Food	4-12-4	(659)	4.45	4.00	12.74	12.00	4.90	4.00	----
G.L.F. Plant Food	5-10-5	(374)	5.37	5.00	10.78	10.00	5.96	5.00	----
G.L.F. Plant Food	5-10-5	(652)	5.09	5.00	10.80	10.00	5.89	5.00	----
G.L.F. Plant Food	5-10-5	(683)	5.33	5.00	10.18	10.00	5.26	5.00	----
G.L.F. Super Plant Food	4-12-12	(568)	4.01	4.00	13.28	12.00	12.05	12.00	----
G.L.F. Super Plant Food	5-10-10	(569)	5.19	5.00	10.66	10.00	10.48	10.00	----
G.L.F. Super Plant Food	5-10-10	(337)	5.27	5.00	10.80	10.00	10.85	10.00	----
G.L.F. Super Plant Food	5-10-10	(371)	5.55	5.00	10.22	10.00	10.49	10.00	----
G.L.F. Super Plant Food	5-10-10	(684)	5.24	5.00	10.86	12.00	11.17	10.00	----
G.L.F. Super Plant Food	6-12-6	(345)	6.36	6.00	12.28	12.00	6.68	6.00	----
G.L.F. Super Plant Food	6-12-6	(372)	6.29	6.00	12.70	12.00	6.26	6.00	----
G.L.F. Super Plant Food	6-12-6	(653)	5.83	6.00	12.56	12.00	7.00	6.00	----
G.L.F. Super Plant Food	6-18-6	(347)	6.26	6.00	18.02	18.00	6.68	6.00	----
G.L.F. Super Plant Food	8-16-16	(346)	8.49	8.00	16.68	16.00	15.98	16.00	----
A. D. GRAHAM & COMPANY, INC. Somerset, Pa.									
Beaver Brand	3-12-6	(207)	3.33	3.00	12.14	12.00	6.86	6.00	----
Beaver Brand	4-12-12	(212)	4.15	4.00	12.82	12.00	11.94	12.00	----
Beaver Brand	5-10-10	(208)	5.22	5.00	10.88	10.00	11.02	10.00	----
Beaver Brand	5-10-10	(209)	5.05	5.00	10.22	10.00	10.41	10.00	----

\* Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME				NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		As Muriate
				Found	Guar.	Found	Guar.	Found	Guar.	
				P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
GRIFFITH & BOYD COMPANY Baltimore, Md.										
Griffith & Boyd's	Champion	4-12-12 (321)		4.16	4.00	12.42	12.00	12.79	12.00	----
Griffith & Boyd's	Farmers	Queen 5-10-10 (462)		5.12	5.00	12.36	10.00	*9.20	10.00	----
Griffith & Boyd's	Fish	Brand 5-10-10 (460)		5.18	5.00	11.94	10.00	*9.75	10.00	----
Griffith & Boyd's	Nitro	Crop Feeder 10-6-4 (320)		*8.14	10.00	8.82	6.00	5.04	4.00	----
Griffith & Boyd's	Planters	Pride 3-12-6 (222)		3.01	3.00	12.98	12.00	6.71	6.00	----
Griffith & Boyd's	Planters	Pride 3-12-6 (461)		3.20	3.00	12.72	12.00	6.57	6.00	----
Griffith & Boyd's	Planters	Pride 3-12-6 (509)		3.18	3.00	12.48	12.00	6.55	6.00	----
Griffith & Boyd's	Truck &	Potato Special 5-10-5 (220)		4.81	5.00	10.62	10.00	5.66	5.00	----
Griffith & Boyd's	Truck &	Potato Special 5-10-5 (319)		5.28	5.00	10.54	10.00	5.40	5.00	----
HEEMAN MANUFACTURING COMPANY Wooster, Ohio										
Wooster Lawn Builder with	2-4-D	8-8-4 (293)		8.82	8.00	9.46	8.00	4.24	4.00	----
A. H. HOFFMAN, INC. Landisville, Pa.										
Hoffman Rose Food		5-10-5 (113)		5.05	5.00	10.58	10.00	6.35	5.00	----
INDEPENDENT MANUFACTURING COMPANY Philadelphia, Pa.										
Independent's	Consumer	3-12-6 (287)		3.43	3.00	12.30	12.00	6.80	6.00	----
Independent's	Consumer	4-12-8 (272)		4.01	4.00	12.52	12.00	8.78	8.00	----
Independent's	Consumer	4-12-12 (286)		4.22	4.00	12.02	12.00	11.97	12.00	----
Independent's	Consumer	4-12-12 (421)		4.05	4.00	12.34	12.00	12.56	12.00	----
Independent's	Consumer	5-10-5 (273)		5.40	5.00	10.22	10.00	6.77	5.00	----
Independent's	Consumer	5-10-10 (420)		5.40	5.00	10.02	10.00	9.80	10.00	----
Independent's	Standard	5-10-10 (285)		5.12	5.00	10.14	10.00	10.26	10.00	----
INTERNATIONAL MINERALS AND CHEMICAL CORPORATION Buffalo, N. Y.										
International Premium		3-12-6 (661)		3.01	3.00	12.24	12.00	6.67	6.00	----
KOLLER FERTILIZER COMPANY York, Pa.										
Koller's Atomic Potato	Phosphate	5-10-10 ( 87)		5.27	5.00	10.86	10.00	10.42	10.00	----
Koller's Elk Phosphate		3-12-6 ( 84)		3.22	3.00	12.94	12.00	6.73	6.00	----
Koller's Keystone Potato	Phosphate	4-12-8 ( 86)		4.19	4.00	13.30	12.00	8.08	8.00	----
Koller's Potato Phosphate		4-12-12 ( 85)		4.35	4.00	13.04	12.00	12.83	12.00	----
LANCASTER BONE FERTILIZER COMPANY INCORPORATED Quarryville, Pa.										
Conestoga		3-12-6 ( 58)		3.05	3.00	12.12	12.00	5.82	6.00	----
Conestoga		3-12-6 (126)		3.33	3.00	*11.66	12.00	6.12	6.00	----
Conestoga		5-10-10 (129)		4.83	5.00	10.72	10.00	10.02	10.00	----
LEBANON FERTILIZER WORKS, INC. Lebanon, Pa.										
Levan's		3-12-6 (325)		3.30	3.00	12.86	12.00	6.41	6.00	----
Levan's		4-12-4 (324)		4.13	4.00	13.18	12.00	8.44	8.00	----
Levan's		4-12-8 (323)		4.33	4.00	12.56	12.00	8.70	8.00	----
Levan's		4-12-12 (327)		4.12	4.00	12.72	12.00	12.79	12.00	----
Levan's		5-10-5 (326)		5.31	5.00	10.94	10.00	5.35	5.00	----
Levan's		5-10-10 (322)		5.34	5.00	10.94	10.00	10.54	10.00	----
FRED E. LORD, INCORPORATED Espy, Pa.										
Lord's		3-12-6 ( 51)		3.02	3.00	13.24	12.00	5.83	6.00	----
Lord's		4-12-12 ( 52)		4.18	4.00	13.26	12.00	*11.22	12.00	----
Lord's		5-10-5 ( 55)		4.92	5.00	11.00	10.00	5.44	5.00	----
Lord's		5-10-10 ( 54)		5.12	5.00	12.30	10.00	*8.53	10.00	----
MATHIESON CHEMICAL CORPORATION Baltimore, Md.										
Mathieson		5-10-10 (117)		6.23	5.00	*9.26	10.00	11.32	10.00	----
Mathieson		6-24-12 (478)		*5.27	6.00	*21.58	24.00	15.78	12.00	----
Mathieson		6-24-12 (579)		6.37	6.00	24.22	24.00	14.39	12.00	----
Mathieson		8-16-16 (479)		*6.71	8.00	16.30	16.00	*11.79	16.00	----

\* Deficient



TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		As Muriate
			Found	Guar.	Found	Guar.	Found	Guar.	
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
MILLER CHEMICAL & FERTILIZER CORPORATION Baltimore, Md.									
Rich Yield	3-12-6	( 61)	3.01	3.00	12.68	12.00	5.92	6.00	----
Rich Yield	3-12-6	( 95)	3.40	3.00	12.12	12.00	6.64	6.00	----
Rich Yield	4-12-4	( 96)	4.33	4.00	12.48	12.00	4.58	4.00	----
Rich Yield	4-12-4	(358)	4.38	4.00	12.08	12.00	4.41	4.00	----
Rich Yield	5-10-10	( 97)	5.19	5.00	10.50	10.00	10.45	10.00	----
MOCK SEED COMPANY Pittsburgh, Pa.									
Mock's Super Turf Lawn Food	6-10-4	(292)	6.34	6.00	10.24	10.00	5.29	4.00	----
ORGANIC PLANT FOOD COMPANY Lancaster, Pa.									
Master Farmer	3-12-6	(115)	3.56	3.00	12.58	12.00	8.11	6.00	----
Master Farmer	4-8-12	(116)	4.05	4.00	8.94	8.00	12.85	12.00	----
PENNSYLVANIA FARM BUREAU COOPERATIVE ASSN. Harrisburg, Pa.									
C.F.S.	2-12-12	(157)	2.11	2.00	12.52	12.00	13.16	12.00	----
C.F.S.	3-12-6	( 5)	3.23	3.00	12.04	12.00	6.29	6.00	----
C.F.S.	3-12-6	( 46)	3.23	3.00	12.42	12.00	6.41	6.00	----
C.F.S.	3-12-6	( 77)	3.55	3.00	12.76	12.00	7.05	6.00	----
C.F.S.	3-12-6	( 78)	3.26	3.00	13.04	12.00	6.28	6.00	----
C.F.S.	3-12-6	(153)	3.51	3.00	12.90	12.00	6.32	6.00	----
C.F.S.	3-12-6	(175)	3.29	3.00	13.00	12.00	5.98	6.00	----
C.F.S.	3-12-6	(203)	4.18	3.00	13.20	12.00	8.01	6.00	----
C.F.S.	3-12-6	(237)	3.22	3.00	12.66	12.00	6.36	6.00	----
C.F.S.	3-12-6	(393)	3.39	3.00	12.46	12.00	6.22	6.00	----
C.F.S.	3-12-6	(406)	3.28	3.00	12.22	12.00	6.22	6.00	----
C.F.S.	3-12-6	(535)	3.16	3.00	12.94	12.00	6.55	6.00	----
C.F.S.	3-12-6	(594)	3.24	3.00	12.88	12.00	6.12	6.00	----
C.F.S.	3-12-6	(607)	3.40	3.00	12.12	12.00	7.47	6.00	----
C.F.S.	4-12-4	( 9)	4.21	4.00	12.20	12.00	4.46	4.00	----
C.F.S.	4-12-4	( 48)	4.26	4.00	12.04	12.00	6.13	4.00	----
C.F.S.	4-12-4	( 94)	4.19	4.00	12.06	12.00	4.98	4.00	----
C.F.S.	4-12-4	(152)	4.37	4.00	12.68	12.00	6.36	4.00	----
C.F.S.	4-12-4	(154)	4.17	4.00	13.04	12.00	4.57	4.00	----
C.F.S.	4-12-4	(394)	4.07	4.00	11.92	12.00	4.76	4.00	----
C.F.S.	4-12-4	(443)	4.27	4.00	12.04	12.00	4.25	4.00	----
C.F.S.	4-12-8	( 47)	4.59	4.00	12.24	12.00	8.89	8.00	----
C.F.S.	4-12-8	( 92)	4.23	4.00	12.68	12.00	8.91	8.00	----
C.F.S.	4-12-8	(238)	4.15	4.00	12.90	12.00	8.86	8.00	----
C.F.S.	4-12-8	(408)	4.47	4.00	12.70	12.00	9.29	8.00	----
C.F.S.	4-12-8	(591)	4.12	4.00	13.42	12.00	8.62	8.00	----
C.F.S.	4-12-8	(608)	4.34	4.00	12.66	12.00	8.45	8.00	----
C.F.S.	5-10-5	( 7)	5.16	5.00	12.38	10.00	5.35	5.00	----
C.F.S.	5-10-5	(150)	5.02	5.00	10.96	10.00	5.51	5.00	----
C.F.S.	5-10-5	(239)	5.23	5.00	10.38	10.00	5.55	5.00	----
C.F.S.	5-10-5	(409)	5.15	5.00	10.58	10.00	5.43	5.00	----
C.F.S.	5-10-5	(446)	5.13	5.00	10.70	10.00	5.91	5.00	----
C.F.S.	5-10-5	(610)	5.24	5.00	10.78	10.00	5.32	5.00	----
C.F.S.	5-10-10	( 50)	5.26	5.00	10.60	10.00	10.51	10.00	----
C.F.S.	5-10-10	( 76)	5.33	5.00	10.46	10.00	10.67	10.00	----
C.F.S.	5-10-10	( 93)	5.28	5.00	10.66	10.00	10.46	10.00	----
C.F.S.	5-10-10	(151)	5.25	5.00	10.76	10.00	10.47	10.00	----
C.F.S.	5-10-10	(156)	5.22	5.00	11.12	10.00	10.68	10.00	----
C.F.S.	5-10-10	(174)	5.33	5.00	10.50	10.00	10.41	10.00	----
C.F.S.	5-10-10	(206)	5.25	5.00	10.58	10.00	10.14	10.00	----
C.F.S.	5-10-10	(228)	5.29	5.00	10.80	10.00	10.50	10.00	----
C.F.S.	5-10-10	(240)	5.20	5.00	10.62	10.00	10.22	10.00	----
C.F.S.	5-10-10	(444)	5.18	5.00	10.64	10.00	10.08	10.00	----
C.F.S.	5-10-10	(595)	5.32	5.00	10.90	10.00	10.37	10.00	----
C.F.S.	5-10-10	(609)	5.41	5.00	10.52	10.00	10.66	10.00	----
C.F.S.	5-20-10	( 49)	5.01	5.00	20.08	20.00	10.18	10.00	----
C.F.S.	5-20-10	( 79)	5.25	5.00	20.82	20.00	10.93	10.00	----
C.F.S.	5-20-10	(176)	5.24	5.00	20.02	20.00	10.97	10.00	----
C.F.S.	5-20-10	(229)	5.01	5.00	20.24	20.00	10.54	10.00	----
C.F.S.	8-16-16	(155)	*7.07	8.00	16.44	16.00	16.52	16.00	----
C.F.S.	8-16-16	(204)	7.86	8.00	16.00	16.00	16.18	16.00	----
C.F.S.	8-16-16	(227)	8.08	8.00	16.36	16.00	16.14	16.00	----
C.F.S.	8-16-16	(395)	*7.68	8.00	17.54	16.00	16.43	16.00	----
C.F.S.	8-16-16	(442)	8.19	8.00	16.30	16.00	17.66	16.00	----
C.F.S.	10-10-10	( 75)	10.09	10.00	10.44	10.00	10.90	10.00	----
C.F.S.	10-10-10	(236)	9.83	10.00	10.88	10.00	10.54	10.00	----
C.F.S.	10-10-10	(592)	*9.54	10.00	12.66	10.00	10.64	10.00	----
READING BONE FERTILIZER COMPANY Reading, Pa.									
Reading	3-12-6	(138)	3.71	3.00	12.26	12.00	6.98	6.00	----
Reading	4-12-4	(140)	4.15	4.00	12.24	12.00	4.36	4.00	----
Reading	4-12-8	(139)	4.43	4.00	12.16	12.00	7.96	8.00	----
Reading	4-12-12	(141)	3.94	4.00	12.64	12.00	13.00	12.00	----
Reading	5-10-5	(137)	5.09	5.00	10.96	10.00	5.00	5.00	----
Reading	5-10-10	(136)	4.81	5.00	11.08	10.00	10.24	10.00	----

\* Deficient



TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
			Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
ROBERT A. REIGHARD, INC. Allentown, Pa.									
Reichard's Animal Base	3-12-6	(163)	3.06	3.00	12.54	12.00	6.51	6.00	----
Reichard's Animal Base	3-12-6	(418)	2.91	3.00	12.72	12.00	6.18	6.00	----
Reichard's Animal Base	3-12-6	(440)	3.17	3.00	12.90	12.00	6.00	6.00	----
Reichard's Animal Base	4-12-4	(165)	3.83	4.00	11.82	12.00	6.74	4.00	----
Reichard's Animal Base	4-12-4	(415)	3.89	4.00	11.96	12.00	4.98	4.00	----
Reichard's Animal Base	4-12-8	(162)	4.03	4.00	12.14	12.00	8.61	8.00	----
Reichard's Animal Base	4-12-12	(166)	3.81	4.00	12.50	12.00	11.87	12.00	----
Reichard's Animal Base	5-10-5	(168)	4.87	5.00	10.62	10.00	5.75	5.00	----
Reichard's Animal Base	5-10-5	(423)	4.92	5.00	10.68	10.00	5.10	5.00	----
Reichard's Animal Base	5-10-5	(451)	4.88	5.00	10.44	10.00	5.00	5.00	----
Reichard's Animal Base	5-10-10	(164)	5.21	5.00	10.08	10.00	9.81	10.00	----
Reichard's Animal Base	5-10-10	(419)	5.34	5.00	10.00	10.00	9.97	10.00	----
Reichard's Famous	8-16-16	(167)	8.13	8.00	16.94	16.00	16.50	16.00	----
F. S. ROYSTER GUANO COMPANY Baltimore, Md.									
Royster Guano	2-12-12	(556)	2.70	2.00	13.58	12.00	12.33	12.00	----
Royster Guano	3-12-6	(31)	3.23	3.00	12.84	12.00	6.37	6.00	----
Royster Guano	3-12-6	(184)	3.14	3.00	12.38	12.00	6.32	6.00	----
Royster Guano	3-12-6	(311)	3.43	3.00	12.84	12.00	6.45	6.00	----
Royster Guano	3-12-6	(363)	3.39	3.00	13.32	12.00	6.55	6.00	----
Royster Guano	3-12-6	(383)	3.22	3.00	12.86	12.00	6.52	6.00	----
Royster Guano	3-12-6	(504)	3.17	3.00	12.66	12.00	6.42	6.00	----
Royster Guano	3-12-6	(559)	3.15	3.00	12.28	12.00	6.55	6.00	----
Royster Guano	3-12-6	(602)	3.19	3.00	12.02	12.00	6.47	6.00	----
Royster Guano	4-12-8	(526)	4.26	4.00	9.20	8.00	11.94	12.00	----
Royster Guano	4-12-8	(364)	4.29	4.00	*11.70	12.00	8.78	8.00	----
Royster Guano	4-12-8	(506)	4.35	4.00	12.24	12.00	8.59	8.00	----
Royster Guano	4-12-12	(422)	4.25	4.00	12.42	12.00	*11.51	12.00	----
Royster Guano	5-10-5	(185)	5.03	5.00	11.20	10.00	5.51	5.00	----
Royster Guano	5-10-5	(312)	5.15	5.00	10.90	10.00	5.11	5.00	----
Royster Guano	5-10-5	(351)	5.31	5.00	10.88	10.00	5.28	5.00	----
Royster Guano	5-10-5	(505)	5.25	5.00	10.72	10.00	5.33	5.00	----
Royster Guano	5-10-5	(555)	5.21	5.00	10.84	10.00	5.61	5.00	----
Royster Guano	5-10-5	(603)	*3.35	5.00	12.62	10.00	5.22	5.00	----
Royster Guano	5-10-5	(644)	5.15	5.00	11.26	10.00	6.80	5.00	----
Royster Guano	5-10-10	(32)	4.85	5.00	10.88	10.00	10.03	10.00	----
Royster Guano	5-10-10	(186)	5.30	5.00	10.56	10.00	9.95	10.00	----
Royster Guano	5-10-10	(382)	5.11	5.00	10.80	10.00	10.09	10.00	----
Royster Guano	5-10-10	(554)	5.35	5.00	10.40	10.00	9.87	10.00	----
Royster Guano	10-6-10	(557)	*3.24	10.00	7.90	6.00	5.53	4.00	----
Royster Guano	10-10-10	(380)	9.82	10.00	11.12	10.00	10.18	10.00	----
Royster Vim for Gardens, Lawns, Flowers & Shrubs	5-10-5	(662)	5.11	5.00	10.90	10.00	5.58	5.00	----
SEARS, ROEBUCK & COMPANY Chicago, Ill.									
Gross Country Plant Food	5-10-5	(314)	4.97	5.00	10.90	10.00	5.56	5.00	----
CHARLES H. SEIBERT Myerstown, Pa.									
Successful Crop Grower	3-12-6	(328)	3.43	3.00	12.58	12.00	6.84	6.00	----
Successful Crop Grower	3-12-12	(330)	2.88	3.00	11.18	12.00	12.48	12.00	----
Successful Crop Grower	5-1-10	(329)	5.01	5.00	11.52	10.00	10.09	10.00	----
M. L. SHOEMAKER DIVISION OF WILSON & COMPANY, INC. Philadelphia, Pa.									
M. L. Shoemaker's "Swift Sure"	3-12-6	(260)	3.44	3.00	12.98	12.00	6.12	6.00	----
"Swift Sure"	5-10-5	(267)	5.33	5.00	10.34	10.00	5.16	5.00	----
"Swift Sure"	5-10-10	(266)	5.23	5.00	11.12	10.00	10.62	10.00	----
SUMMERS FERTILIZER COMPANY, INC. Baltimore, Md.									
"Summers" Best-On-Earth	3-12-6	(74)	3.11	3.00	12.04	12.00	6.95	6.00	----
"Summers" Best-On-Earth	3-12-6	(133)	3.11	3.00	12.56	12.00	6.38	6.00	----
SWACK FERTILIZER COMPANY DuBois, Pa.									
Swack's	3-12-6	(36)	2.95	3.00	12.64	12.00	6.02	6.00	----
Swack's	3-12-6	(244)	3.01	3.00	12.00	12.00	6.00	6.00	----
Swack's	3-12-6	(619)	2.86	3.00	13.02	12.00	5.95	6.00	----
Swack's	4-12-8	(477)	4.20	4.00	12.92	12.00	7.93	8.00	----
Swack's	5-10-5	(476)	5.13	5.00	10.60	10.00	5.18	5.00	----
Swack's	5-10-10	(33)	5.83	5.00	10.52	10.00	10.79	10.00	----
Swack's	5-10-10	(245)	5.08	5.00	10.48	10.00	10.41	10.00	----
SWIFT & COMPANY PLANT FOOD DIVISION Baltimore, Md.									
Elenn	3-12-6	(65)	3.21	3.00	12.62	12.00	6.88	6.00	----
Elenn	3-12-6	(430)	3.21	3.00	12.22	12.00	6.59	6.00	----
Elenn	3-12-6	(311)	3.31	3.00	13.09	12.00	6.68	6.00	----
Elenn	2-12-12	(14)	3.06	3.00	12.12	12.00	12.80	12.00	----
Brimm	5-10-10	(66)	5.04	5.00	10.66	10.00	9.83	10.00	----
Brimm	5-10-10	(216)	5.18	5.00	10.42	10.00	9.87	10.00	----

\* Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME			NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		As Muriate
			Found	Guar.	Found	Guar.	Found	Guar.	
			P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	
Brimm	5-10-10 (428)		5.18	5.00	10.06	10.00	10.03	10.00	----
Brimm	5-10-10 (530)		5.13	5.00	11.06	10.00	9.84	10.00	----
Brimm	5-10-10 (657)		4.91	5.00	10.86	10.00	10.74	10.00	----
Swift's Red Steer	3-12-6 (13)		3.05	3.00	12.58	12.00	6.64	6.00	----
Swift's Red Steer	3-12-6 (30)		2.81	3.00	12.66	12.00	6.71	6.00	----
Swift's Red Steer	3-12-6 (135)		3.33	3.00	12.06	12.00	6.63	6.00	----
Swift's Red Steer	3-12-6 (189)		3.60	3.00	12.14	12.00	6.59	6.00	----
Swift's Red Steer	3-12-6 (388)		3.34	3.00	12.30	12.00	6.69	6.00	----
Swift's Red Steer	3-12-6 (414)		3.27	3.00	12.74	12.00	7.04	6.00	----
Swift's Red Steer	3-12-6 (426)		3.56	3.00	12.28	12.00	6.54	6.00	----
Swift's Red Steer	3-12-6 (500)	*2.49	3.00	3.00	12.50	12.00	7.17	6.00	----
Swift's Red Steer	3-12-6 (533)		3.46	3.00	12.94	12.00	6.71	6.00	----
Swift's Red Steer	3-12-6 (620)		3.68	3.00	12.22	12.00	6.16	6.00	----
Swift's Red Steer	3-12-6 (655)		2.85	3.00	13.20	12.00	6.24	6.00	----
Swift's Red Steer	4-12-4 (387)		4.28	4.00	12.64	12.00	4.76	4.00	----
Swift's Red Steer	4-12-4 (429)		4.07	4.00	11.80	12.00	4.72	4.00	----
Swift's Red Steer	4-12-12 (534)		3.82	4.00	12.86	12.00	*11.37	12.00	----
Swift's Red Steer	5-10-5 (188)		5.42	5.00	10.50	10.00	7.33	5.00	----
Swift's Red Steer	5-10-5 (217)		5.32	5.00	10.24	10.00	6.38	5.00	----
Swift's Red Steer	5-10-5 (235)	*4.55	5.00	5.00	10.54	10.00	7.50	5.00	----
Swift's Red Steer	5-10-5 (656)	*4.63	5.00	5.00	10.64	10.00	6.01	5.00	----
Swift's Red Steer	5-10-10 (187)		5.21	5.00	10.56	10.00	10.53	10.00	----
Swift's Red Steer	5-10-10 (389)		5.07	5.00	10.30	10.00	9.85	10.00	----
Swift's Red Steer	5-10-10 (427)		4.82	5.00	10.58	10.00	9.80	10.00	----
Swift's Red Steer	5-10-10 (654)		4.87	5.00	11.52	10.00	10.28	10.00	----
Swift's Red Steer	5-20-10 (622)	*3.09	5.00	5.00	*16.24	20.00	11.16	10.00	----
Swift's Red Steer	8-16-16 (390)	*7.36	8.00	8.00	15.94	16.00	*14.09	16.00	----
Vigoro	5-10-5 (190)		5.37	5.00	10.26	10.00	5.10	5.00	----
Vigoro	5-10-5 (341)		5.24	5.00	10.06	10.00	5.07	5.00	----
Vigoro	5-10-5 (355)		5.31	5.00	10.60	10.00	5.12	5.00	----
Vigoro	5-10-5 (531)		5.32	5.00	11.16	10.00	5.37	5.00	----
Vigoro	5-10-5 (606)		5.33	5.00	10.16	10.00	5.31	5.00	----
Vigoro	6-10-4 (246)		6.91	6.00	10.62	10.00	4.54	4.00	----
Vigoro	6-10-4 (290)		6.18	6.00	10.14	10.00	4.73	4.00	----
Vigoro	6-10-4 (658)		6.03	6.00	10.84	10.00	4.15	4.00	----
I. P. THOMAS & SON COMPANY Camden, N. J.									
I. P. Thomas	5-10-5 (562)		5.00	5.00	11.58	10.00	6.76	5.00	----
I. P. Thomas	5-10-10 (561)		5.04	5.00	11.32	10.00	10.21	10.00	----
I. P. Thomas	5-10-10 (640)		5.25	5.00	11.16	10.00	10.46	10.00	----
Tip Top	3-12-6 (565)		3.15	3.00	12.04	12.00	6.60	6.00	----
Tip Top	3-12-6 (642)		3.90	3.00	12.46	12.00	6.79	6.00	----
Tip Top Special	3-12-6 (566)		3.20	3.00	12.56	12.00	6.92	6.00	----
F. W. TUNNELL & COMPANY. INC. Philadelphia, Pa.									
Tunnell's Fertilizer	3-12-6 (412)		3.06	3.00	11.84	12.00	6.29	6.00	----
Tunnell's Fertilizer	3-12-6 (417)		3.22	3.00	11.94	12.00	6.71	6.00	----
Tunnell's Fertilizer	3-12-6 (537)		3.35	3.00	11.98	12.00	6.50	6.00	----
Tunnell's Fertilizer	4-12-8 (269)		4.24	4.00	12.14	12.00	8.65	8.00	----
Tunnell's Fertilizer	5-10-5 (281)		5.17	5.00	10.40	10.00	5.09	5.00	----
Tunnell's Fertilizer	5-10-5 (553)	*3.91	5.00	5.00	13.44	10.00	*3.88	5.00	----
Tunnell's Fertilizer	5-10-5 (647)		5.16	5.00	10.48	10.00	5.73	5.00	----
Tunnell's Fertilizer	5-10-10 (268)		5.14	5.00	10.00	10.00	10.16	10.00	----
Tunnell's Fertilizer	5-10-10 (343)		5.29	5.00	10.54	10.00	10.91	10.00	----
Tunnell's Fertilizer	5-10-10 (402)		5.01	5.00	10.12	10.00	10.70	10.00	----
Tunnell's Fertilizer	5-10-10 (416)		5.11	5.00	9.94	10.00	10.91	10.00	----
Tunnell's Fertilizer	5-10-10 (538)		4.90	5.00	*9.30	10.00	10.62	10.00	----
Tunnell's Fertilizer	5-10-10 (648)		5.36	5.00	10.10	10.00	10.12	10.00	----
Tunnell's Fertilizer	7-7-7 (282)		6.84	7.00	8.10	7.00	7.04	7.00	----
UNIVERSAL CHEMICAL COMPANY Lynn, Mass.									
Electra Plant Food	5-10-3 (352)		5.33	5.00	9.92	10.00	3.21	3.00	----
VIRGINIA-CAROLINA CHEMICAL CORP. Baltimore, Md.									
V-C Fertilizer	3-12-6 (4)		3.14	3.00	12.14	12.00	6.31	6.00	----
V-C Fertilizer	3-12-6 (101)		3.07	3.00	13.26	12.00	6.63	6.00	----
V-C Fertilizer	3-12-6 (450)		3.30	3.00	11.82	12.00	6.39	6.00	----
V-C Fertilizer	3-12-6 (483)		3.26	3.00	12.42	12.00	6.13	6.00	----
V-C Fertilizer	3-12-6 (549)		3.10	3.00	12.24	12.00	6.49	6.00	----
V-C Fertilizer	3-12-6 (598)		3.09	3.00	12.00	12.00	8.36	6.00	----
V-C Fertilizer	3-12-6 (638)		3.24	3.00	11.86	12.00	6.64	6.00	----
V-C Fertilizer	3-12-6 (681)		3.15	3.00	12.52	12.00	6.15	6.00	----
V-C Fertilizer	4-12-4 (99)		4.26	4.00	12.02	12.00	4.88	4.00	----
V-C Fertilizer	4-12-4 (680)		4.14	4.00	12.46	12.00	4.22	4.00	----
V-C Fertilizer	4-12-8 (550)		4.43	4.00	12.34	12.00	8.64	8.00	----
V-C Fertilizer	4-12-12 (484)		4.21	4.00	11.84	12.00	12.87	12.00	----
V-C Fertilizer	5-10-5 (551)		5.29	5.00	10.94	10.00	5.10	5.00	----
V-C Fertilizer	5-10-10 (102)		5.34	5.00	10.52	10.00	10.20	10.00	----
V-C Fertilizer	5-10-10 (548)		5.28	5.00	10.22	10.00	10.54	10.00	----
V-C Fertilizer	5-10-10 (637)		5.18	5.00	10.84	10.00	10.47	10.00	----
V-C Fertilizer	8-16-16 (98)		8.23	8.00	16.12	16.00	16.83	16.00	----
YORK STONE & SUPPLY COMPANY York, Pa.									
Cramer's York	3-12-6 (63)		3.70	3.00	12.04	12.00	6.51	6.00	----
Cramer's York	5-10-10 (64)		5.43	5.00	10.16	10.00	11.48	10.00	----
Cramer's York	5-10-10 (88)		5.41	5.00	10.26	10.00	11.14	10.00	----

\* Deficient

TABLE IV. GROUND BONE FERTILIZERS—FURNISHING NITROGEN AND PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	NITROGEN		PHOSPHORIC ACID	
	Found	Guar.	Found	Guar.
	P. ct.	P. ct.	P. ct.	P. ct.
CENTRAL CHEMICAL CORPORATION Labanon, Pa.				
Farmrite Bona Meal (313)	2.83	2.30	24.30	20.00
DOLD FEED COMPANY, INC. Buffalo, N. Y.				
Dold Quality Bone Meal (362)	2.86	2.00	23.90	23.00
A. H. HOFFMAN, INC. Landisville, Pa.				
Hoffman Bona Meal (Raw) (114)	*3.11	3.70		
INDEPENDENT MANUFACTURING COMPANY Philadelphia, Pa.				
Independant's Bone Meal (274)	2.71	2.47	24.50	23.00
F. W. TUNNELL & COMPANY, INC. Philadelphia, Pa.				
Tunnall's Pure Ground Bone (271)	2.76	2.47	25.20	23.00

\* Deficient

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.
THE AMERICAN AGRICULTURAL CHEMICAL CO. New York, N. Y.						
Normal Superphosphate 18%	(12)		18.78	18.00		
Normal Superphosphate 18%	(27)		18.84	18.00		
Normal Superphosphate 18%	(68)		18.74	18.00		
Normal Superphosphate 18%	(198)		18.80	18.00		
Normal Superphosphate 18%	(234)		18.48	18.00		
Normal Superphosphate 18%	(249)		19.36	18.00		
Normal Superphosphate 18%	(357)		19.44	18.00		
Normal Superphosphate 18%	(385)		18.74	18.00		
Normal Superphosphate 18%	(471)		18.58	18.00		
Normal Superphosphate 18%	(581)		20.82	18.00		
Normal Superphosphate 18%	(674)		19.44	18.00		
ARMOUR FERTILIZER WORKS Baltimore, Md.						
Armour's Big Crop Superphosphate 20%	(159)		20.34	20.00		
Armour's Big Crop Superphosphate 20%	(518)		21.14	20.00		
Armour's Big Crop Superphosphate 20%	(574)		21.44	20.00		
Armour's Big Crop Superphosphate 20%	(628)		20.98	20.00		
Armour's Big Crop Superphosphate 20%	(651)		21.16	20.00		
BAUGH & SONS COMPANY Philadelphia, Pa.						
Baugh's Superphosphate 20%	(275)		20.00	20.00		
Baugh's Superphosphate 20%	(288)		20.48	20.00		
CARLISLE FERTILIZER WORKS, INC. Carlisle, Pa.						
Carlisle Superphosphate 20%	(399)		20.82	20.00		
CENTRAL CHEMICAL CORPORATION Hagerstown, Md.						
Farmrite Superphosphate 20%	(502)		21.42	20.00		
Farmrite Superphosphate 20%	(588)		21.78	20.00		
CUMBERLAND VALLEY COOPERATIVE ASSN. Shippensburg, Pa.						
Old Reliable Superphosphate 20%	(91)		20.66	20.00		
Old Reliable Superphosphate 20%	(403)		20.66	20.00		
THE DAVISON CHEMICAL CORPORATION Baltimore, Md.						
Davco Granulated Superphosphate 20%	(2)		20.92	20.00		
Davco Granulated Superphosphate 20%	(41)		20.58	20.00		
Davco Granulated Superphosphate 20%	(178)		19.82	20.00		
Davco Granulated Superphosphate 20%	(183)		21.64	20.00		
Davco Granulated Superphosphate 20%	(201)		20.94	20.00		
Davco Granulated Superphosphate 20%	(301)		21.38	20.00		
Davco Granulated Superphosphate 20%	(466)		21.10	20.00		
Davco Granulated Superphosphate 20%	(490)		20.12	20.00		
Davco Granulated Superphosphate 20%	(547)		21.28	20.00		
Davco Granulated Superphosphate 20%	(578)		21.16	20.00		
Davco Granulated Superphosphate 20%	(586)		21.62	20.00		
Davco Granulated Superphosphate 20%	(618)		21.06	20.00		
EASTERN STATE FARMERS' EXCHANGE INCORPORATED West Springfield, Mass.						
Eastern States Superphosphate Granulated 20%	(226)		20.96	20.00		
Eastern States Superphosphate Granulated 20%	(308)		20.98	20.00		
Eastern States Superphosphate Granulated 20%	(453)		20.48	20.00		
AMOS EBY & COMPANY Paradise, Pa.						
Eby Superphosphate 20%	(119)		20.94	20.00		
FARMERS FERTILIZER WORKS Elizabethtown, Pa.						
Farmers Superphosphate 20%	(111)		20.98	20.00		
* Deficient						

\* Deficient

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME		PHOSPHORIC ACID					
		Total		Available		Insoluble	
		Found	Guar.	Found	Guar.	Found	Guar.
		P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
G.I.F. SOIL BUILDING SERVICE Ithaca, N. Y.							
G.I.F. Superphosphate 20%	(375)			20.60	20.00		
G.I.F. Superphosphate 20%	(567)			20.90	20.00		
G.I.F. Superphosphate 20%	(571)			21.30	20.00		
GRIFFITH & BOYD COMPANY Baltimore, Md.							
Griffith & Boyd's Superphosphate 20%	(221)			21.44	20.00		
INTERNATIONAL MINERALS AND CHEMICAL CORPORATION Buffelo, N. Y.							
International Superphosphate 20%	(369)			20.70	20.00		
International Superphosphate 20%	(660)			21.00	20.00		
LANCASTER BONE FERTILIZER COMPANY INCORPORATED Quarryville, Pe.							
Conestoge Superphosphate 18%	(128)			18.50	18.00		
FRED E. LORD, INCORPORATED Espy, Pa.							
Lord's Superphosphate 20%	( 57)			21.10	20.00		
MILLER CHEMICAL & FERTILIZER CORP. Baltimore, Md.							
Superphosphate 20%	( 62)			20.62	20.00		
PENNSYLVANIA FARM BUREAU COOPERATIVE ASSN. Harrisburg, Pe.							
C.F.S. Superphosphate 20%	( 8)			20.76	20.00		
C.F.S. Superphosphate 20%	( 45)			20.76	20.00		
C.F.S. Superphosphate 20%	( 80)			21.06	20.00		
C.F.S. Superphosphate 20%	(177)			21.36	20.00		
C.F.S. Superphosphate 20%	(205)			20.94	20.00		
C.F.S. Superphosphate 20%	(396)			20.84	20.00		
READING BONE FERTILIZER COMPANY Reading, Pa.							
Reading Superphosphate 20%	(142)			20.08	20.00		
Reading Superphosphate 20%	(407)			20.62	20.00		
ROBERT A. REICHARD, INC. Allentown, Pe.							
Reichard's Famous Superphosphate 20%	(424)			20.68	20.00		
F. S. ROYSTER GUANO COMPANY Baltimore, Md.							
Royster Superphosphate 20%	(310)			21.62	20.00		
Royster Superphosphate 20%	(527)			21.78	20.00		
Royster Superphosphate 20%	(560)			21.08	20.00		
Royster Superphosphate 20%	(577)			21.82	20.00		
Royster Superphosphate 20%	(604)			21.22	20.00		
Royster Superphosphate 20%	(663)			20.52	20.00		
SWACK FERTILIZER COMPANY DuBois, Pe.							
Swack's Superphosphate 20%	( 35)			21.52	20.00		
SWIFT & COMPANY PLANT FOOD DIVISION Baltimore, Md.							
Swift's Red Steer Superphosphate 20%	(431)			21.88	20.00		
Swift's Red Steer Superphosphate 20%	(621)			21.14	20.00		
I. P. TROMAS & SON COMPANY Camden, N. J.							
Superphosphate 20%	(563)			21.56	20.00		
Superphosphate 20%	(643)			21.14	20.00		
* Deficient							



TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

200-4-40

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.
F. W. TUNNELL & COMPANY, INC. Philadelphia, Pa.						
Tunnell's Superphosphate 20% (283)			20.04	20.00		
Tunnell's Superphosphate 20% (413)			20.68	20.00		
VIRGINIA-CAROLINA CHEMICAL COMPANY Baltimore, Md.						
V-C Superphosphate 20% (572)			21.88	20.00		
V-C Superphosphate 18% (599)			19.50	18.00		
YORK STONE & SUPPLY COMPANY York, Pa.						
Cramer's York Superphosphate 20% ( 81)			21.58	20.00		
* Deficient						

TABLE VI. ROCK AND POTASH FERTILIZERS—FURNISHING PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME				AVAILABLE PHOSPHORIC ACID		POTASH		
				Found	Guar.	Found	Guar.	As Muriate
				P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
THE AMERICAN AGRICULTURAL CHEMICAL COMPANY New York, N. Y.								
AA Quality Fertilizer	0-14-14	(676)	15.04	14.00	14.91	14.00	----	----
Agrico Phosphate & Potash	0-12-12	(197)	12.34	12.00	12.72	12.00	----	----
Agrico Phosphate & Potash	0-12-12	(465)	13.04	12.00	*11.76	12.00	----	----
Agrico Phosphate & Potash	0-12-12	(467)	12.40	12.00	12.94	12.00	----	----
Agrico Phosphate & Potash	0-14-7	(104)	15.14	14.00	*6.60	7.00	----	----
Agrico Phosphate & Potash	0-14-7	(439)	15.00	14.00	7.42	7.00	----	----
Agrico Phosphate & Potash	0-14-7	(675)	14.72	14.00	7.48	7.00	----	----
Agrico Phosphate & Potash	0-14-14	(384)	14.22	14.00	15.05	14.00	----	----
ARMOUR FERTILIZER WORKS Baltimore, Md.								
Armour's Big Crop	0-20-20	(232)	*17.88	20.00	22.72	20.00	----	----
Armour's Big Crop	0-20-20	(576)	19.94	20.00	*17.72	20.00	----	----
BAUGH & SONS COMPANY Philadelphia, Pa.								
Baugh's Phosphate & Potash Mixture	0-12-12	(279)	12.18	12.00	12.99	12.00	----	----
Baugh's Phosphate & Potash Mixture	0-14-7	(265)	14.54	14.00	8.30	7.00	----	----
CENTRAL CHEMICAL CORPORATION Hagerstown, Md.								
Farmrite Fertilizer	0-14-7	( 22)	14.34	14.00	7.42	7.00	----	----
Farmrite Fertilizer	0-14-7	(482)	14.02	14.00	6.81	7.00	----	----
Farmrite Fertilizer	0-14-14	( 23)	14.02	14.00	13.93	14.00	----	----
Farmrite Fertilizer	0-14-14	(521)	14.62	14.00	14.33	14.00	----	----
CUMBERLAND VALLEY COOPERATIVE ASSN. Shippensburg, Pa.								
Old Reliable	0-14-7	(404)	17.80	14.00	*5.72	7.00	----	----
THE DAVISON CHEMICAL CORPORATION Baltimore, Md.								
Davco Granulated	0-14-7	( 42)	14.74	14.00	8.24	7.00	----	----
Davco Granulated	0-14-14	(613)	15.14	14.00	14.39	14.00	----	----
Old Reliable	0-20-20	(247)	*18.10	20.00	*19.72	20.00	----	----
EASTERN STATES FARMERS' EXCHANGE INCORPORATED West Springfield, Mass.								
Eastern States	0-20-20	(254)	20.12	20.00	21.20	20.00	----	----
Eastern States	0-20-20	(459)	20.00	20.00	21.44	20.00	----	----
Eastern States	0-20-20	(494)	19.84	20.00	22.54	20.00	----	----
Eastern States with Borax	0-19-19	(253)	19.60	19.00	18.87	19.00	----	----
ALCO EBY & COMPANY Paradise, Pa.								
Eby	0-14-7	(121)	14.28	14.00	8.21	7.00	----	----
FARMERS FERTILIZER WORKS Elizabethtown, Pa.								
Farmers	0-12-12	(108)	13.08	12.00	13.03	12.00	----	----
Farmers	0-14-7	(109)	14.50	14.00	8.22	7.00	----	----
G.L.F. SOIL BUILDING SERVICE Ithaca, N. Y.								
G.L.F. Super Plant Food	0-20-20	(338)	20.04	20.00	20.62	20.00	----	----
G.L.F. Super Plant Food	0-20-20	(359)	20.00	20.00	20.00	20.00	----	----
G.L.F. Super Plant Food	0-20-20	(639)	19.80	20.00	20.86	20.00	----	----
A. D. GRAHAM & COMPANY, INC. Somerset, Pa.								
Beaver Brand	0-12-12	(210)	12.84	12.00	12.67	12.00	----	----
Beaver Brand	0-14-7	(211)	14.88	14.00	8.43	7.00	----	----
GRIFFITH & BOYD COMPANY Baltimore, Md.								
Griffith & Boyd's Phosphate & Potash	0-20-20	(218)	19.84	20.00	20.00	20.00	----	----
Griffith & Boyd's Special Grain Grower	0-14-7	(219)	14.46	14.00	7.29	7.00	----	----
LANCASTER BONE FERTILIZER COMPANY, INC. Quarryville, Pa.								
Conestoga	0-12-12	(125)	13.12	12.00	*10.89	12.00	----	----
Conestoga	0-14-7	(127)	15.48	14.00	*6.67	7.00	----	----
FRED E. LORD, INC. Espy, Pa.								
Lord's	0-12-12	( 56)	13.12	12.00	12.96	12.00	----	----
Lord's	0-20-20	( 53)	*19.78	20.00	21.48	20.00	----	----

\* Deficient

TABLE VI. ROCK AND POTASH FERTILIZERS—FURNISHING PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME				AVAILABLE PHOSPHORIC ACID		POTASH		
				Found	Guar.	Found	Guar.	As Muriate
				P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
PENNSYLVANIA FARM BUREAU COOPERATIVE ASSN. Harrisburg, Pa.								
C. F. S.	0-14-7	( 6 )	14.70	14.00	7.62	7.00	----	
C. F. S.	0-14-7	(242)	15.36	14.00	7.94	7.00	----	
C. F. S.	0-14-7	(445)	15.28	14.00	7.95	7.00	----	
C. F. S.	0-14-14	(149)	15.16	14.00	15.58	14.00	----	
C. F. S.	0-14-14	(536)	14.96	14.00	14.29	14.00	----	
C. F. S.	0-14-14	(593)	15.10	14.00	15.70	14.00	----	
C. F. S.	0-20-20	( 44 )	20.00	20.00	*19.33	20.00	----	
C. F. S.	0-20-20	(611)	20.12	20.00	21.32	20.00	----	
F. S. ROYSTER GUANO COMPANY Baltimore, Md.								
Royster Phosphate & Potash	0-14-7	(556)	14.58	14.00	7.31	7.00	----	
Royster Phosphate & Potash	0-20-20	(381)	19.84	20.00	20.90	20.00	----	
SUMMERS FERTILIZER COMPANY, INC. Baltimore, Md.								
"Summers"	0-14-7	(132)	14.04	14.00	7.66	7.00	----	
SWACK FERTILIZER COMPANY DuBois, Pa.								
Swack's	0-14-7	( 34 )	14.42	14.00	6.91	7.00	----	
SWIFT & COMPANY PLANT FOOD DIVISION Baltimore, Md.								
Swift's Red Steer	0-14-7	(425)	14.66	14.00	7.74	7.00	----	
Swift's Red Steer	0-14-14	(529)	15.58	14.00	14.17	14.00	----	
Swift's Red Steer	0-20-20	(386)	*19.48	20.00	*19.36	20.00	----	
Swift's Red Steer	0-20-20	(532)	*18.82	20.00	*17.87	20.00	----	
I. P. THOMAS & SON COMPANY Camden, N. J.								
I. P. Thomas	0-20-20	(564)	*17.82	20.00	*17.96	20.00	----	
I. P. Thomas	0-20-20	(641)	*17.68	20.00	*14.84	20.00	----	
F. W. TUNNELL & COMPANY, INC. Philadelphia, Pa.								
Tunnell's	0-12-12	(284)	12.84	12.00	11.80	12.00	----	
Tunnell's	0-14-7	(270)	14.22	14.00	7.95	7.00	----	
VIRGINIA-CAROLINA CHEMICAL CORPORATION Baltimore, Md.								
V-C Fertilizer	0-12-12	(552)	12.68	12.00	13.02	12.00	----	
V-C Fertilizer	0-20-20	(100)	20.44	20.00	20.08	20.00	----	

\* Deficient

TABLE VII. MISCELLANEOUS FERTILIZERS

MANUFACTURER AND BRAND NAME		NITROGEN				PHOSPHORIC ACID			
		Found		Guar.		Total		Available	
		P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Agrinite	(635)	8.36	8.25						
THE AMERICAN AGRICULTURAL CHEMICAL COMPANY New York, N. Y.									
American Cyanamid Company									
New York, N. Y.									
Aero Cyanamid, Granular	(353)	20.64	20.60						
Aeropills Ammonium Nitrate, Fertilizer	(309)	33.50	33.50						
E. I. DUPONT DE NEMOURS & COMPANY Wilmington, Del.									
DuPont Nugreen	(361)	44.73	44.00						
SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE Milwaukee, Wis.									
Milorgaite	(289)	5.87	6.00				2.76		2.00

\* Deficient